

### **REMARKS**

Claims 1-2, 4-5, and 42-47 are all the claims presently pending in the application. Claims 1 and 42 have been amended. Claims 46-47 have been added. Claims 3 and 6-41 are canceled. No new matter is added.

Applicants specifically state that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

The contents of the present Office Action are addressed in the following discussion.

#### **I. INTERVIEW SUMMARY**

Applicants' undersigned representative wishes to thank the Examiner and his supervisor for the in-person interview on November 9, 2010. The amendments herein incorporate the suggestions made by the Examiner and his supervisor, and represent the agreements made with respect to the claims; and the remarks below substantially address the issues discussed. This also addresses any subsequent Interview Summary that may be mailed by the Office, based on the draft Interview Summary supplied by the Examiner at the conclusion of the interview.

#### **II. THE 35 U.S.C. § 101 REJECTION**

Claims 1, 2, 4, and 5 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Specifically, the Office alleges that "the scope of a 'data storage medium' covers a signal per se." (Office Action at page 3, paragraph 5.)

While Applicants disagree with this rejection, to expedite prosecution, claim 1 is amended to recite a "non-transitory data storage medium" to alleviate the Office's concerns and render this rejection moot. However, Applicants note that "non-transitory" data storage media includes all data storage media, with the sole exception being a transitory, propagating signal.

Therefore, Applicants respectfully request the Office to withdraw this rejection. This issue was addressed in the November 9, 2010, interview.

#### **III. THE PRIOR ART REJECTION – The Kato Reference**

Claims 1, 2, 4, 5, and 42-45 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Kato et al. (U.S. Patent Publication No. 2002/0145702 A1).

Kato discloses continuous reproduction commanding of audio/visual (AV) streams. (Kato at Abstract.) The Office alleges that Kato anticipates each and every feature of the claims. However, Applicants respectfully disagree and submit that Kato fails to teach or suggest each and every limitation and element recited in these claims. As a result, this rejection is improper and unsupported by Kato, and, thus, should be withdrawn.

Specifically, MPEP § 2131 provides that “[a] claim is anticipated only if *each and every element* as set forth in the claim is found, either expressly or inherently described, *in a single prior art reference*.” Verdegaal Bros. v. Union Oil Co. of CA, 814 F.2d 628, 631 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989).

The Office clearly fails to show that Kato meets this burden and errs in its application of Kato to the present claims. Specifically, Kato fails to teach or suggest a non-transitory data storage medium for use with a recording and/or reproducing apparatus, “comprising . . . an executable program comprising navigation data including at least one command, each command controlling reproduction of a corresponding reproduction information unit”, as recited, for example, in claim 1 and somewhat similarly with respect to apparatus of claim 42.

The Office alleges that the executable program of the present invention corresponds to the thumbnail of Kato. The Office alleges that mark information is stored in either a Menu.thmb or Mark.thmb at lines 4-5 from the bottom in page 4 of the present Office Action.

However, referring to Table 1 provided herewith, clip mark is included in zzzz.clpi, and the zzzz.clpi is included in CLIPINF, and the CLIPINF is separate from the Menu.thmb or the Mark.thmb. Accordingly, the indication that the mark information is stored in either a Menu.thmb or Mark.thmb, is unreasonable.

Table 1.

```

graph TD
    root --> DVR
    DVR --> info_dvr[info.dvr]
    DVR --> menu_thmb[mnu.thmb]
    DVR --> mark_thmb[mark.thmb]
    DVR --> PLAYLIST
    DVR --> CLIPINF
    DVR --> M2TS
    DVR --> DATA
    PLAYLIST --> 01001_rpls[01001.rpls]
    PLAYLIST --> 02002_rpls[02002.rpls]
    PLAYLIST --> 99999_rpls[99999.rpls]
    CLIPINF --> 01000_clpi[01000.clpi]
    CLIPINF --> 02000_clpi[02000.clpi]
    CLIPINF --> 03000_clpi[03000.clpi]
    M2TS --> 01000_m2ts[01000.m2ts]
    M2TS --> 02000_m2ts[02000.m2ts]
    M2TS --> 03000_m2ts[03000.m2ts]
  
```

SYNTAX	NUMBER OF BYTES	ABBREVIATION
xxxx.clpi {		
STC_Info_Start_address	32	uint32
ProgramInfo_Start_address	32	uint32
CPI_Start_address	32	uint32
ClipMark_Start_address	32	uint32
MakersPrivateData_Start_address	32	uint32
reserved	96	bsbf
ClipInfo()		
for (i=0; i<N1; i++){		
padding_word	16	bsbf
}		
STC_Info()		
for (i=0; i<N2; i++){		
padding_word	16	bsbf
}		
ProgramInfo()		
for (i=0; i<N3; i++){		
padding_word	16	bsbf
}		
CPI()		
for (i=0; i<N4; i++){		
padding_word	16	bsbf
}		
ClipMark()		
for (i=0; i<N5; i++){		
padding_word	16	bsbf
}		
MakersPrivateData()		
}		

SYNTAX	NUMBER OF BYTES	ABBREVIATION
ClipMark() {		
version_number	8*4	bsbf
length	32	uint32
number_of_clip_marks	16	uint32
for (i=0; i<number_of_clip_marks; i++){		
reserved	8	bsbf
mark_type	8	bsbf
mark_time_stamp	32	uint32
STC_sequence_id	8	uint32
reserved	24	bsbf
character_set	8	bsbf
name_length	8	uint32
mark_name	8*256	bsbf
ref_hierarchical_index	16	uint32
}		

Further, referring to Table 2 included herewith, playlist mark is included in xxxx.rpls, and the xxxx.rpls is included in PLAYLIST, and the PLAYLIST is separate from the Menu.thmb or the Mark.thmb. Accordingly, the indication that the mark information is stored in either a Menu.thmb or Mark.thmb, is unreasonable.

Table 2:

```

graph TD
    root[root] --> DVR[DVR]
    DVR --> info_dvr[info.dvr]
    DVR --> menu_thmb[menu.thmb]
    DVR --> mark_thmb[mark.thmb]
    DVR --> PLAYLIST[PLAYLIST]
    DVR --> CLIPINF[CLIPINF]
    DVR --> M2TS[M2TS]
    DVR --> DATA[DATA]
    PLAYLIST --> 01001_rpls[01001.rpls]
    PLAYLIST --> 02002_rpls[02002.rpls]
    PLAYLIST --> 99999_rpls[99999.rpls]
    CLIPINF --> 01000_clpi[01000.clpi]
    CLIPINF --> 02000_clpi[02000.clpi]
    CLIPINF --> 03000_clpi[03000.clpi]
    M2TS --> 01000_m2ts[01000.m2ts]
    M2TS --> 02000_m2ts[02000.m2ts]
    M2TS --> 03000_m2ts[03000.m2ts]
  
```

SYNTAX	NUMBER OF BYTES	ALIGNMENT
xxxxxxrpls / yyyyyy.rpls {		
PlaylistMark_Start_address	32	uint32
MakersPrivateData_Start_address	32	uint32
reserved	192	bsbf
Playlist()		
for (i=0; i<N1; i++){		
padding_word	16	bsbf
}		
PlaylistMark()		
for (i=0; i<N2; i++){		
padding_word	16	bsbf
}		
MakersPrivateData()		
}		

SYNTAX	NUMBER OF BYTES	ALIGNMENT
PlaylistMark() {		
version_number	8*4	bsbf
length	32	uint32
number of Playlist marks	15	uint32
for (i=0; i<number of Playlist marks; i++){		
reserved	8	bsbf
mark_type	8	bsbf
mark_time_stamp	32	uint32
PlaylistItem_id	8	uint32
reserved	24	uint32
character_set	8	bsbf
name_length	8	uint32
mark_size	8*256	bsbf
ref_thumbnail_index	16	uint32
}		
}		

Further, referring to table 3 included herewith, Thumbnail() included in the Menu.thmb/the Mark.thmb just contains information on the corresponding thumbnail picture, but never has a command controlling of reproduction of the corresponding reproduction information unit.

Table 3:

SYNTAX	NUMBER OF BYTES	ABBREVIATION
menu(thumb/mark.thmb) {		
reserved	256	byte
Thumbnail		
for (i=0; i<NT; i++)		
padding_word	16	byte
}		

[0376] The mark.thmb file stores a mark thumbnail picture, that is a picture representing a mark point. The totality of mark thumbnails corresponding to the totality of Playlists and Clips are stored in the sole mark.thmb file. Since the thumbnails are frequently added or deleted, the operation of addition and partial deletion must be executable readily and speedily. For this reason, Thumbnail( ) has a block structure. Picture data is divided into plural portions each of which is stored in one tn\_block. One picture data is stored in consecutive tn\_blocks. In the string of tn\_blocks, there may exist a tn\_block not in use. The byte length of a sole thumbnail picture is variable.

SYNTAX	NUMBER OF BYTES	ABBREVIATION
Thumbnail {		
version_number	8*4	char
length	32	uint8
if (length != 0) {		
tn_block_start_address	16	uint8
number_of_thumbnails	16	uint8
tn_block_size	16	uint8
number_of tn_blocks	16	uint8
reserved	16	byte
for (i=0; i<number_of_thumbnails; i++) {		
thumbnail_index	16	uint8
thumbnail_picture_format	8	byte
reserved	8	byte
picture_data_size	32	uint8
start tn_block_number	16	uint8
x_picture_length	16	uint8
y_picture_length	16	uint8
reserved	16	uint8
}		
}		
stuffing_bytes	8*2*13	byte
for (i=0; i<number_of tn_blocks; i++) {		
tn_block	tn_block_size*1024*2	
}		
}		

Accordingly, the indication that the executable program of the present invention is taught or suggested by the thumbnail of Kato is unreasonable. Indeed, the “mark information” of Kato, which the Office alleges teaches the executable program of the present claims, fails to teach or suggest “at least one command . . . controlling reproduction of a corresponding reproduction information unit.” Specifically, according to the Office’s reasoning, paragraphs [0156]-[0158] and [0368]-[0376] and Figures 75, 78, and 79 of Kato teaches that the “mark information” controls or is involved in controlling reproduction of a Playlist. The Office alleges that this teaches “at least one command . . . controlling reproduction of a corresponding reproduction information unit.”

However, none of these portions of Kato teaches or suggests the “mark information” having any relation to a command that controls reproduction of a corresponding reproduction information unit. In other words, the mark information fails to control anything resembling a Playlist, which, according to the Office, allegedly teaches the reproduction information unit of the present claims. Indeed, the Office must show that such a relationship exists in order to show that this feature of the present claims is taught or suggested by Kato. However, the Office fails to do this. Thus, in view of the Office’s interpretation, Kato clearly fails to teach or suggest the executable program of the present claims.

As discussed in the interview, Kato does not disclose, teach, or suggest “an executable program” comprising navigation data comprising at least one command, each command controlling reproduction of a corresponding reproduction information unit,” as recited in claims 1, 42, and 47.

Further, Kato clearly fails to teach or suggest a non-transitory data storage medium for use with a recording and/or reproducing apparatus, “*comprising . . . a first file comprising at least one clip, each clip comprising audio visual stream data and a timemap comprising information on reproduction time when the audio visual stream data is reproduced and information on a reproduction position of the audio visual stream data corresponding to the reproduction time*”, as recited, for example, in claim 1 and somewhat similarly to the claimed recording apparatus of claim 42. (Application at paragraph [0030].)

The Office alleges that this feature is taught at Figure 14 and paragraphs [0194]-[0197], [0220], [0337], and [0340] of Kato. However, these portions of Kato completely fail to teach or suggest the clip of the present claims as is clearly defined in the original specification. Specifically, the “Clip” of Kato is merely “a database of the AV stream”. (Kato at paragraphs [0150], [0155], etc.)

While Kato at paragraph [0194] teaches that the “Clip” includes information regarding “finding a data address in the Clip AV stream file at which to start the data readout when a time stamp of the access point to the Clip is afforded”, it is clear from the above-referenced paragraphs that the “Clip” of Kato does not include the AV stream. Indeed, paragraphs [0194] and [0220] of Kato even mention a “Clip AV stream file”.

However, the above-referenced “Clip AV Stream file” has clearly served to mislead the Office in its interpretation of Kato and the present claims. The “Clip” of Kato clearly refers to the AV stream file, but the “Clip” of Kato never includes either the “AV Stream file” or the “Clip AV Stream file” of Kato. The AV streams of Kato, including the “Clip AV Stream file” of Kato, are simply referred to by the “Clip” of Kato and are not included in the “Clip” of Kato. Indeed, Applicants respectfully submit that Kato clearly fails to teach or suggest the clip of the present claims, and, thus, clearly fails to teach or suggest the first file of the present claims.

In addition, the Office alleges that Kato teaches the second file of the present claims. For example, the Office alleges that Playlists of Kato teach the second file of the present claims. However, Applicants respectfully submit that the Office is erroneously interpreting the present claims in view of Kato. Specifically, paragraph [0150] of Kato defines a “PlayList” as “a database

of a group . . . of playback domains (PlayItem) of the AV stream . . .” This clearly has absolutely nothing to do with the second file or the reproduction information unit of the present claims. Indeed, the reproduction information unit includes information indicating a reproduction interval of a corresponding clip.

Further, Applicants respectfully cannot understand the Office’s rationale regarding the rejections of claims 4, 5, 44, and 45. Specifically, the Office’s rejection of these claims fails to address the existence of multiple layers. The Office is reminded that the claims must be interpreted in light of the specification. Moreover, the Office is not permitted to ignore limitations that exist within the claims. Indeed, one having ordinary skill in the art would clearly find that the Office’s rationale with respect to the above-referenced claims completely fails to address the existence of multiple layers.

Therefore, for at least the above-referenced reasons, the Office clearly fails to make a *prima facie* case of anticipation in view of Kato with respect to the present claims. Accordingly, Applicants respectfully request the Office to reconsider and withdraw this rejection.

Claims 2, 4-5, and 43-45 depend, respectively, from independent claims 1 and 42, and are patentable at least for the reasons mentioned above, and on their own merits.

Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claims 1-2, 4-5, and 42-47 be withdrawn and the claims allowed.

#### **IV. NEW CLAIMS**

New claims 46 and 47 are added to claim additional features and to provide more varied protection. These claims are independently patentable because of the novel and nonobvious features recited therein.

Applicants submit that the new claims are patentable at least for analogous reasons to those set forth above.

**V. CONCLUSION**

In view of the foregoing, Applicants submit that claims 1-2, 4-5, and 42-47, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Office is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Office find the application to be other than in condition for allowance, the Office is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

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